

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Original) A compound comprising:
 - a) at least one pentopyranosyl nucleic acid; and
 - b) a biomolecule conjugated through a covalent linkage to the at least one pentopyranosyl nucleic acid, andwherein the pentopyranosyl nucleic acid has at least two pentopyranosyl nucleotide subunits, wherein the subunits of the pentopyranosyl subunits are covalently linked between carbon 4 and carbon 2 of their respective pentopyranosyl rings, and wherein the pentopyranosyl nucleic acid does not stably hybridize to naturally occurring DNA or RNA.
2. (Currently Amended) The compound of ~~claim 2~~ claim 1, wherein the compound further comprises one or more moieties selected from the group consisting of a detectable labeling moiety and a moiety for attachment to a solid carrier, wherein each moiety is conjugated to either the biomolecule or the pentopyranosyl nucleic acid through a covalent linkage.
3. (New) The compound of claim 1, wherein the biomolecule is selected from the group consisting of DNA, RNA, peptide, protein, antibody, and functional antibody fragment.
4. (New) The compound of claim 1, wherein the biomolecule and the at least one pentopyranosyl nucleic acid are linked through a phosphate linker.
5. (New) The compound of claim 1, wherein the biomolecule is linked to the at least one pentopyranosyl nucleic acid through a base of a pentopyranosyl nucleotide subunit.
6. (New) The compound of claim 1, wherein each of the at least two pentopyranosyl subunits have a base selected from the group consisting of 9-adeninyl, 9-guaninyl, 1-thyminyl, 1-cytosinyl, 1-uracilyl, and 1-indolyl.

7. (New) A compound comprising:
a biotin molecule; and
a pentopyranosyl nucleic acid conjugated to the biotin molecule.
8. (New) The compound of claim 7, wherein the pentopyranosyl nucleic acid has at least two pentopyranosyl nucleotide subunits, wherein the subunits of the pentopyranosyl subunits are covalently linked between carbon 4 and carbon 2 of their respective pentopyranosyl rings.
9. (New) The compound of claim 7, wherein biotin and the pentopyranosyl nucleic acid are conjugated through a phosphate bond.
10. (New) The compound of claim 7, wherein the biotin and the pentopyranosyl nucleic acid are conjugated through an amide bond.
11. (New) The compound of claim 7, wherein the biotin and the pentopyranosyl nucleic acid are conjugated through a covalent linkage.